UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,558	11/21/2001	Sung-Ho Choi	678-774 (P9992)	2537

28249 7590 08/07/2006

DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553

EXAMINER
SHEW, JOHN

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/990,558	CHOI ET AL.	
	Examiner	Art Unit	
	John L. Shew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☒ Claim(s) *11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune et al. (Pub. No. 2002/0025815 A1) in view of Willars et al. (Patent No. US 6889050 B1).

Claim 1, Rune teaches a method for setting a common channel for a packet data service by a SRNC (Serving Radio Network Controller) (FIG. 1A, Abstract lines 1-6) referenced by the Core Network Service Nodes including a SRNC assigning a C-Radio Network Temporary Identifier to a common channel, to a UE (User Equipment) (page 3 paragraph [0026]) referenced by the second mode wherein the SRNC assigns the cell involving the UE and the C-RNTI in the assigned cell, through a Node B and a DRNC (Drift Radio Network Controller) (FIG. 1B, page 5 paragraph [0050]) referenced by the communication of the SRNC through the DRNC 26_2 via the Base Station $28_{2\text{-}2}$ to the UE 30, when the UE is handed over from a first Node B to a second Node B as the UE moves to the second Node B (FIG. 1A, page 3 paragraph [0029], FIG. 1B, page 3 paragraph [0030]) referenced by the handover of the UE 30 connection from the first node BS $28_{1\text{-}1}$ to second node BS $28_{2\text{-}2}$, in a mobile communication system including

the UE (FIG. 1A, page 1 paragraph [0004]) referenced by the mobile user equipment units communicating via a radio access network, the first Node B providing the packet data service to the UE (FIG. 1, page 4 paragraphs [0040]-[0042], FIG. 1A, page 4 paragraph [0048]) referenced by the BS 28_{1-1} communicating with the UE 30 shown through broken line 36_{1A} providing packet switched type services of the core network, the SRNC connected to the first Node B (FIG. 1A) referenced by the SRNC 26_1 in communication with the BS 28_{1-1} , a CN (Core Network) connected to the SRNC (FIG. 1A) referenced by the Core Network Service Nodes 16 in communication with the SRNC 26_1 , and the DRNC connected the second Node B neighboring the first Node B (FIG. 1A) referenced by the RNC 26_2 in communication with the second node BS 28_{2-2} which neighbors the first node BS 28_{1-1}, and also connected to the SRNC (FIG. 1B) referenced by the SRNC 26_1 in communication with the second node BS 28_{2-2} via the DRNC 26_2, the method comprising the steps of transmitting service parameters for the packet data service to the DRNC (FIG. 1B, FIG. 3, FIG. 4C-2, page 7 paragraph [0063]) referenced by the SRNC 26_1 transmission of REQUEST message 3-3 including parameters C-RNTI Cell Identity and Radio Resources to the DRNC 26_2, and transmitting information on the determined common channel to the UE through the DRNC and the second Node B to allocate the determined common channel to the UE (FIG. 1B, FIG. 3) reference by the REQUEST message 3-3 to the UE via the DRNC wherein the message request the UE to switch to Common Channel.

Rune does not teach wherein the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC, the SRNC stores the bit rate information,

transmitting bit rate information for the packet service to the DRNC, nor receiving information on a common channel determined based on the service parameters from the DRNC.

Willars teaches the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC (Fig. 2, col. 2 lines 59-61) referenced by the mimimum guaranteed rate over the Iu interface between the CN and SRNC, the SRNC stores the bit rate information (Fig. 2) referenced by SRNC 26 communication with the UE 30 at the minimum guaranteed rate which requires storage of the rate information within the SRNC, transmitting bit rate information for the packet service to the DRNC (Fig. 6, col. 5 lines 4-9) referenced by the RL Setup message Transport Format Set including a minimum bit rate, receiving information on a common channel determined based on the service parameters from the DRNC (col. 3 lines 24-32) referenced by DRNC map the connection to a common transport channel for the UE connection based on data amount.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Claim 2, Rune teaches a method of common channel switching by a DRNC.

Rune does not teach the bit rate information includes a maximum bit rate and a guaranteed bit rate.

Willars teaches the bit rate information includes a maximum bit rate (col. 9 lines 61-64) referenced by the TFS maximum bit rate, and a guaranteed bit rate (col. 9 lines 61-64) referenced by the minimum guaranteed bit rate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Claim 3, Rune teaches wherein the common channel is one of a common packet channel (CPCH) a random access channel (RACH) and a forward access channel (FACH) (page 1 para. [0010]) referenced by the common transport channels are the common packet channel (CPCH) the random access channel (RACH) and the forward access channel (FACH).

Claim 4, Rune teaches a method for setting a common channel for a packet data service by a SRNC (Serving Radio Network Controller) (FIG. 1A, Abstract lines 1-6) referenced by the Core Network Service Nodes including a SRNC assigning a C-Radio Network Temporary Identifier to a common channel, to a UE (User Equipment) (page 3 paragraph [0026]) referenced by the second mode wherein the SRNC assigns the cell involving the UE and the C-RNTI in the assigned cell, through a Node B and a DRNC (Drift Radio Network Controller) (FIG. 1B, page 5 paragraph [0050]) referenced by the communication of the SRNC through the DRNC 26_2 via the Base Station $28_{2\text{-}2}$ to the UE 30, when the UE is handed over from a first Node B to a second Node B as the UE moves to the second Node B (FIG. 1A, page 3 paragraph [0029], FIG. 1B, page 3

paragraph [0030]) referenced by the handover of the UE 30 connection from the first node BS $28_{1\text{-}1}$ to second node BS $28_{2\text{-}2}$, in a mobile communication system including the UE (FIG. 1A, page 1 paragraph [0004]) referenced by the mobile user equipment units communicating via a radio access network, the first Node B providing the packet data service to the UE (FIG. 1, page 4 paragraphs [0040]-[0042], FIG. 1A, page 4 paragraph [0048]) referenced by the BS $28_{1\text{-}1}$ communicating with the UE 30 shown through broken line 36_{1A} providing packet switched type services of the core network, the SRNC connected to the first Node B (FIG. 1A) referenced by the SRNC 26_1 in communication with the BS $28_{1\text{-}1}$, a CN (Core Network) connected to the SRNC (FIG. 1A) referenced by the Core Network Service Nodes 16 in communication with the SRNC 26_1, and the DRNC connected the second Node B neighboring the first Node B (FIG. 1A) referenced by the RNC 26_2 in communication with the second node BS $28_{2\text{-}2}$ which neighbors the first node BS $28_{1\text{-}1}$, and also connected to the SRNC (FIG. 1B) referenced by the SRNC 26_1 in communication with the second node BS $28_{2\text{-}2}$ via the DRNC 26_2, the method comprising the steps of transmitting service parameters for the packet data service to the DRNC (FIG. 1B, FIG. 3, FIG. 4C-2, page 7 paragraph [0063]) referenced by the SRNC 26_1 transmission of REQUEST message 3-3 including parameters C-RNTI Cell Identity and Radio Resources to the DRNC 26_2, using an RNSAP (Radio Network Subsystem Application Part) message (FIG. 3, page 7 paragraph [0065]) referenced by the use of RNSAP signaling for request/response messages including 3-1 which carries the parameter information to the DRNC, and transmitting the determined common channel information to the UE through a radio

resource control message to allocate the determined common channel to the UE (FIG. 1B, FIG. 3, page 6 paragraph [0061]) reference by the REQUEST message 3-3 to the UE using the RRC protocol specifications wherein the message request the UE to switch to Common Channel.

Rune does not teach wherein the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC, the SRNC stores the bit rate information, transmitting bit rate information for the packet service to the DRNC, nor receiving information on a common channel determined based on the service parameters through a response message from the DRNC.

Willars teaches the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC (Fig. 2, col. 2 lines 59-61) referenced by the mimimum guaranteed rate over the Iu interface between the CN and SRNC, the SRNC stores the bit rate information (Fig. 2) referenced by SRNC 26 communication with the UE 30 at the minimum guaranteed rate which requires storage of the rate information within the SRNC, transmitting bit rate information for the packet service to the DRNC (Fig. 6, col. 5 lines 4-9) referenced by the RL Setup message Transport Format Set including a minimum bit rate, receiving information on a common channel determined based on the service parameters through a response message from the DRNC (col. 3 lines 24-32, Fig. 6) referenced by DRNC map the connection to a common transport channel for the UE connection based on data amount and RL Setup Response including allowed TFS. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile

system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Claim 5, Rune teaches wherein the RNSAP message includes a common transport channel resources request message (FIG. 3, page 7 paragraph [0065]) referenced by the REQUEST message 3-1 which is an extension of the Common Transport Channel Resources procedure of the RNSAP signaling.

Claim 6, Rune teaches wherein the RNSAP response message includes a common transport channel resources response message (FIG. 3, page 7 paragraph [0065]) referenced by the RESPONSE message 3-2 which is an extension of the Common Transport Channel Resources procedure of the RNSAP signaling.

Claim 7, Rune teaches a method of common channel switching by a DRNC.

Rune does not teach the bit rate information includes a maximum bit rate and a guaranteed bit rate.

Willars teaches the bit rate information includes a maximum bit rate (col. 9 lines 61-64) referenced by the TFS maximum bit rate, and a guaranteed bit rate (col. 9 lines 61-64) referenced by the minimum guaranteed bit rate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Claim 8, Rune teaches wherein the common channel is one of a common packet channel (CPCH) a random access channel (RACH) and a forward access channel

(FACH) (page 1 para. [0010]) referenced by the common transport channels are the common packet channel (CPCH) the random access channel (RACH) and the forward access channel (FACH).

Claim 9, Rune teaches a method for setting a common channel for a packet data service by a SRNC (Serving Radio Network Controller) (FIG. 1A, Abstract lines 1-6) referenced by the Core Network Service Nodes including a SRNC assigning a C-Radio Network Temporary Identifier to a common channel, to a UE (User Equipment) (page 3 paragraph [0026]) referenced by the second mode wherein the SRNC assigns the cell involving the UE and the C-RNTI in the assigned cell, through a Node B and a DRNC (Drift Radio Network Controller) (FIG. 1B, page 5 paragraph [0050]) referenced by the communication of the SRNC through the DRNC 26_2 via the Base Station $28_{2\text{-}2}$ to the UE 30, when the UE is handed over from a first Node B to a second Node B as the UE moves to the second Node B (FIG. 1A, page 3 paragraph [0029], FIG. 1B, page 3 paragraph [0030]) referenced by the handover of the UE 30 connection from the first node BS $28_{1\text{-}1}$ to second node BS $28_{2\text{-}2}$, in a mobile communication system including the UE (FIG. 1A, page 1 paragraph [0004]) referenced by the mobile user equipment units communicating via a radio access network, the first Node B providing the packet data service to the UE (FIG. 1, page 4 paragraphs [0040]-[0042], FIG. 1A, page 4 paragraph [0048]) referenced by the BS $28_{1\text{-}1}$ communicating with the UE 30 shown through broken line 36_{1A} providing packet switched type services of the core network, the SRNC connected to the first Node B (FIG. 1A) referenced by the SRNC 26_1 in communication with the BS $28_{1\text{-}1}$, a CN (Core Network) connected to the SRNC (FIG.

1A) referenced by the Core Network Service Nodes 16 in communication with the SRNC 26_1, and the DRNC connected the second Node B neighboring the first Node B (FIG. 1A) referenced by the RNC 26_2 in communication with the second node BS 28_{2-2} which neighbors the first node BS 28_{1-1}, and also connected to the SRNC (FIG. 1B) referenced by the SRNC 26_1 in communication with the second node BS 28_{2-2} via the DRNC 26_2, the method comprising the steps of determining service parameters for the packet data service (FIG. 1B, FIG. 3, FIG. 4A, page 6 paragraph [0058]) referenced by the SRNC 26_1 transmission of REQUEST message 3-1 including parameters D-RNTI and Cell Identity to the DRNC 26_2 to obtain radio resources information, determining a type of a common channel for transmitting packet data according to the determined service parameters (page 1 paragraph [0010], page 8 paragraph [0072]) referenced by the different types of common channels including RACH FACH CPCH DSCH and the specific channel resources to be utilized by the connection in the assigned cell, and then transmitting the determined service parameters and the determined common channel type to the DRNC (FIG. 1B, FIG. 3, page 6 paragraph [0061]) referenced by the REQUEST message 3-3 to the UE using the RRC protocol specifications wherein the message request the UE to switch to Common Channel and the message is sent via the DRNC, receiving information on the common channel determined based on the service parameters and the common channel type from the DRNC (FIG. 3, page 7 paragraphs [0065]-[0067]) referenced by steps 100-3 and 100-4 wherein the parameters C-RNTI and radio resource are used to determine if the UE is to switch to Common Channel, and transmitting the received common channel information to the UE through the DRNC

and the second Node B to allocate the determined common channel to the UE (FIG. 1B, FIG. 3) reference by the REQUEST message 3-3 to the UE via the DRNC wherein the message request the UE to switch to Common Channel.

Rune does not teach wherein the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC, the SRNC stores the bit rate information, transmitting the determined service parameters to the DRNC, nor receiving information on a common channel determined based on the service parameters from the DRNC.

Willars teaches the CN has bit rate information for the packet service and transmits the bit rate information to the SRNC (Fig. 2, col. 2 lines 59-61) referenced by the mimimum guaranteed rate over the Iu interface between the CN and SRNC, the SRNC stores the bit rate information (Fig. 2) referenced by SRNC 26 communication with the UE 30 at the minimum guaranteed rate which requires storage of the rate information within the SRNC, transmitting the determined service parameters to the DRNC (Fig. 6, col. 5 lines 4-9) referenced by the RL Setup message Transport Format Set including a minimum bit rate, receiving information on a common channel determined based on the service parameters from the DRNC (col. 3 lines 24-32) referenced by DRNC map the connection to a common transport channel for the UE connection based on data amount.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Claim 10, Rune teaches a method of common channel switching by a DRNC.

Rune does not teach the bit rate information includes a maximum bit rate and a guaranteed bit rate.

Willars teaches the bit rate information includes a maximum bit rate (col. 9 lines 61-64) referenced by the TFS maximum bit rate, and a guaranteed bit rate (col. 9 lines 61-64) referenced by the minimum guaranteed bit rate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transmission rate services of Willars to the to the mobile system of switching to common channels of Rune for the purpose of rate control based on load condition monitored by the DRNC as suggested by Willars (col. 4 lines 27-28).

Allowable Subject Matter

Claims 11, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

The reference of Choi et al. (Patent No. US 6963540 B2) used in the previous office action for a prior art rejection is overcome under 35 U.S.C. 103(c). A new prior art search reveals Willars et al. (Patent No. US 6889050 B1) discloses the limitations of bit rate parameters. A new round of rejections are thus presented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

js

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER